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Clothing Life Improvement Project for Child Patients with Severe Mental and Physical Disabilities

- Proposal of Hospital Clothing Designs for Cerebral Palsy Patients

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Applicable principle

Principle 9: A commitment to promoting sustainability through education

1. Activity Overview

Child patients with severe mental and physical disabilities can have significant physical deformities and contractures. However, as their conditions can vary from person to person, it is not easy to choose clothing that matches the patient's particular condition, age and preferences. For this reason, current clothing options for these children are generally limited to ready-made large-size clothes or home-made clothes tailored to their physical conditions made by their family members. Although children with severe mental and physical disabilities spend a lot of time in hospitals, their clothing is uniform, and there are more issues to be addressed in the area of "clothing" than "diet" and "housing".

At the request of the National Hospital Organization Morioka Medical Center, the Morioka Junior College Life Science Department (Life Design Major) at Iwate Prefectural University worked on the designs and production of clothing to improve the clothing aspect of life for children with severe mental and physical disabilities. In this project, six volunteer students studying clothing in the Life Design Major, along with child social workers, nurses, daycare teachers and teachers of the Medical Center worked together to design and produce care clothing tailored to the individual personalities and characteristics of patients. When making the clothes, one or two students worked together with one patient to create items specifically tailored to the patient's individual needs and condition. The completed clothes were showcased at a fashion show held in the ward where families and staff were invited. In addition, the project went beyond merely allowing students to create clothing for patients; it also provided an opportunity for hospital staff and patients' families to reconsider how clothing can take people's disabilities into account and helped contribute to the improvement of the patients' QOL (Quality of Life) through interaction with students. For the students, the project offered an opportunity to get involved in the welfare of people with disabilities and deepen their understanding of children with disabilities to help them work towards a more connected and supportive society in their local communities.

2. Activities and Effects

(1) Project schedule and production process

The project was implemented according to the schedule shown in the table. It took about 3 to 4 hours a week to create the draft designs, and about 6 to 7 hours a week to work on the actual production. Additionally, due to COVID-19, it was not possible to visit the hospital to directly check and measure patients' conditions, so the students worked closely with socialworkers, nurses, daycare teachers, and others in their production process.

Table 1. Activity schedule

| Schedule | Activities |
|---------------------|--|
| July | Project briefing session (Zoom), determination of the volunteer members |
| August | Study sessions (Zoom) about severe mental and physical disabilities by child social workers, and self-study about medical conditions and physical symptoms (checking physical conditions and actual measurements in the hospital was canceled due to COVID-19) |
| September - October | Deciding on items for planning and production => Considering designs => Checking and adjusting draft designs |
| November - January | Creating sewing patterns (drawings) => Checking and adjusting the prototypes => Preparing the fabric and final production |
| February | Final checking => small adjustments => Completing products, creating explanatory materials for the products |
| March | Delivery, hospital fashion show => Evaluation |

(a) Deciding on items for planning and production

The target patients and the items to be produced were determined based on suggestions from the Medical Center. At the time, interviews were conducted with the children's social workers about their medical conditions, behavioral disorders, sizes, preferences, and other things. This information was used as guiding information for the creation of the draft designs. The five items produced were two types of mittens for carers, a coverall, arm covers to protect arms and a cover bag for urostomy pouches.

(b) Creating, checking and adjusting draft designs

Detailed plans such as materials, shapes, colors and details were made, and multiple meetings via e-mails and discussions with hospital staff were held to check whether there were any inconsistencies with conditions or behavioral disorders of the patients, and whether it was easy for caregivers to operate, then draft designs were finalized.

(c) Creating sewing patterns

The sewing patterns that serve as drawings were made based on measurements of commercially available items and clothing items in actual use. Drawings were made according to the size of each intended patient.

(d) Checking and adjusting prototypes

All designs were prototyped using coarse cloth. The prototypes were then checked by hospital staff, and the designs were finalized after adjustments were made.

(e) Preparing the fabric and final production

The choice of fabric was made through discussions with hospital staff as to whether it was appropriate for the movements of patients and life in the hospital. In the production, clothes were made with the utmost care and attention to ensure that the seams do not put any strain on the patient's body.

(2) Fashion show for the presentation of the results

The finished products were showcased at a fashion show held at the hospital. The show was attended by students, faculty members as well as hospital staff involved in the project. Also in the audience were doctors and nurses from the children's ward and the parents of the patients who were in the fashion show. It was a very enjoyable event.

(3) Effects of the activity

While the volunteer students were unable to visit the hospital or interact with patients due to COVID-19, based on lectures from hospital staff, as well as what they learned through self-study, they considered designs that put patients first. This activity was an opportunity to deepen students' interest in welfare, and practice creating universal designs with diversity in mind. Although the items actually produced by the students were intended for care, they had a unique design in terms of fabric and shapes. The fashion show received a great response, and parents also praised the project. Clothing in hospitals tends to be uniform as they are made focusing on factors such as medical conditions and hygiene. However,

we hope that the designs created by the students will be of some help in improving the clothing life for child patients with severe mental and physical disabilities who spend a lot of time in hospitals, as well as their families.



Scene of the fashion show



Production scene



Design drawing and some of the finished products